

Title (en)
SURFACE PRETREATMENT AND DROP SPREADING CONTROL ON MULTI COMPONENT SURFACES

Title (de)
OBERFLÄCHENVORBEHANDLUNG UND TROPFENVERTEILUNGSSTEUERUNG AUF OBERFLÄCHEN MIT MEHREREN KOMPONENTEN

Title (fr)
PRÉTRAITEMENT DE SURFACE ET COMMANDE DE DIFFUSION DE GOUTTES SUR DES SURFACES À COMPOSANTS MULTIPLES

Publication
EP 2946400 A4 20160907 (EN)

Application
EP 14740366 A 20140121

Priority

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- IL 2014050066 W 20140121

Abstract (en)
[origin: WO2014111942A1] Methods, systems and produced printed substrates are provided, which include substrates composed of one or more materials which are treated by an intermediate layer for normalizing surface energies and a digitally printed formulation adapted to the normalized surface energies. Surface energy normalization may be carried out by physical processes or by selective chemical processes. In an example, a self-assembled monolayer is applied to the surface of a printed circuit board to control ink jet dots by reducing copper surface energy and to improve ink adhesion. The self-assembled monolayer binds via an α group selectively and covalently to the copper on the board and binds via a hydrophobic ω group to solder mask ink that is applied to the board. The ω group participates in the solidification process of the ink.

IPC 8 full level
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CPC (source: CN EP US)
B41J 11/0015 (2013.01 - CN EP US); **B41M 5/0011** (2013.01 - CN EP US); **H01L 21/306** (2013.01 - CN EP US); **H05K 1/056** (2013.01 - US); **H05K 3/3452** (2013.01 - CN EP US); **H05K 3/38** (2013.01 - CN EP US); **H05K 2203/013** (2013.01 - CN EP US); **H05K 2203/122** (2013.01 - CN EP US); **Y10T 428/24802** (2015.01 - EP US)

Citation (search report)

- [XYI] US 2010230696 A1 20100916 - FUKUNAGA TAKAHIRO [JP]
- [X] US 2003003231 A1 20030102 - KIGUCHI HIROSHI [JP], et al
- [Y] US 2006046069 A1 20060302 - JUNG GUN Y [US], et al
- [A] US 2003113229 A1 20030619 - BRIONES NATALIA [US], et al
- See references of WO 2014111942A1

Cited by
CN114261227A

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DOCDB simple family (application)
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